

What is claimed is:

1. Digital circuit multiplication equipment having a tandem passthrough function of carrying out passthrough transmission of a coded speech signal, and a variable bit rate function of  
5 varying a transmission bit rate of the coded speech signal in accordance with a load on the equipment, said digital circuit multiplication equipment comprising:

dummy data adding means for generating a pseudo-speech signal with a predetermined transmission bit rate by adding dummy  
10 data including coding bit rate information to a coded speech signal supplied from a transmission line, and for supplying the pseudo-speech signal to a tandem circuit switch;

speech signal extracting means for extracting a coded speech signal from a pseudo-speech signal supplied from said  
15 tandem circuit switch;

bit rate identification information adding means for adding bit rate identification information to the coded speech signal extracted by said speech signal extracting means; and

speech signal output means for selecting, with reference  
20 to coding bit rate information included in the pseudo-speech signal, one of the coded speech signal extracted by said speech signal extracting means and the coded speech signal including the bit rate identification information added by said bit rate identification information adding means, and for delivering the  
25 selected coded speech signal to the transmission line.

2. Digital circuit multiplication equipment having a tandem passthrough function of carrying out passthrough transmission of a coded speech signal, and a variable bit rate function of  
30 varying a transmission bit rate of the coded speech signal in

accordance with a load on the equipment, said digital circuit multiplication equipment comprising:

message notifying means for supplying a transmission line with a message indicating a trunk channel in a passthrough state;

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bit rate fixing means for fixing, when receiving a message indicating a trunk channel in a passthrough state from the transmission line, a transmission bit rate of a coded speech signal on the trunk channel indicated by the message to a predetermined bit rate.

10 3. The digital circuit multiplication equipment according to claim 2, wherein when said message notifying means outputs the message, it utilizes a bearer channel number in a message channel assigned to the transmission line.

15 4. The digital circuit multiplication equipment according to claim 2, wherein when said message notifying means outputs the message, it utilizes a trunk channel number in a message channel assigned to the transmission line.

20 5. Digital circuit multiplication equipment having a tandem passthrough function of carrying out passthrough transmission of a coded speech signal, and a variable bit rate function of varying a transmission bit rate of the coded speech signal in accordance with a load on the equipment, said digital circuit multiplication equipment comprising:

25 detecting means for detecting a start of a passthrough operation of a trunk channel;

30 assignment means for assigning the trunk channel that

starts the passthrough operation to a passthrough clique or a bit bank; and

speech signal output means for transmitting a coded speech signal on the trunk channel through the passthrough clique or 5 the bit bank assigned by said assignment means.

6. The digital circuit multiplication equipment according to claim 5, wherein the clique consists of a series of data sequences consisting of a message channel and a plurality of bearer 10 channels, and the bit bank consists of a series of data sequences forming a dedicated transmission line using a plurality of bearer channels.

7. The digital circuit multiplication equipment according to 15 claim 1, further comprising load measuring means for measuring a load imposed on the equipment, wherein said speech signal output means carries out the selection of the coded speech signal only when the load on the equipment exceeds a predetermined threshold value.

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8. The digital circuit multiplication equipment according to claim 7, wherein said load measuring means consists of a message number supervisor for measuring a number of messages on a message channel assigned to the transmission line.

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9. The digital circuit multiplication equipment according to claim 7, wherein said load measuring means consists of a speech activity channel number supervisor for measuring a number of trunk channels in a speech active state.

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10. The digital circuit multiplication equipment according to claim 7, wherein said load measuring means consists of a bearer occupancy rate supervisor for measuring a bearer occupancy rate of the transmission line.

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11. The digital circuit multiplication equipment according to claim 1, further comprising information reduction means for reducing information amount of the coded speech signal extracted by said speech signal extracting means, wherein said speech signal output means selects one of three coded speech signals consisting of the coded speech signal extracted by said speech signal extracting means, the coded speech signal including the bit rate identification information added by said bit rate identification information adding means, and the coded speech signal whose information amount by said information reduction means.